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Corp C:  
Corp D:  
Corp E:  
Corp F:  
City a:  
City b:  
State a:  
State b:  
State c:  
State d:  
Date a:  
Date b:  
Date c:  
Date d:  
Date e:  
Date f:  
Process:  
Location:  
Coal Seam Area:  
Facility:

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Power Plant:  
Coop:

Dear

This is in response to your request for a ruling, submitted by your authorized representative, concerning the federal income tax consequences of the transaction described below and supplements a prior private letter ruling to you dated f :

FACTS

A. Taxpayer Information

Taxpayer is a State a limited liability company that is a wholly owned subsidiary of Corp A. Taxpayer was formed to lease and operate two refined coal production facilities, including Facility. Because Taxpayer has not elected to be classified as an association taxable as a corporation for federal income tax purposes, it is disregarded as an entity separate from Corp A for such purposes. Corp A is a State a corporation that is wholly owned by Corp B. Corp B, a State a corporation, is the common parent of a consolidated group of companies whose members include Corp A.

B. The Refined Coal Production Process

1. The Facility

Taxpayer has leased the refined coal production facility (Facility) from Corp D for a term ending on Date a. Corp D is wholly owned by Corp C. Facility was designed and constructed by Corp C to produce a refined coal product that reduces emissions of nitrous oxide (NO<sub>x</sub>) and mercury (Hg) when burned as a fuel in a coal-fired power plant.

Facility was placed in service in Date b, and is currently located at Power Plant located in City a, State b on land licensed to Taxpayer pursuant to an agreement with Coop, the owner of Power Plant. Power Plant is a coal-fired steam-producing power plant in regular commercial operation. Taxpayer has entered into a contract with Coop for the sale of refined coal produced by Facility to Coop for use as feedstock in Power Plant. Facility can be moved and reassembled at other power plant locations.

2. The Process

The technology employed to produce the refined coal in Facility is known as Process. It is a proprietary process which is designed to reduce NO<sub>x</sub> and Hg emissions in a cyclone coal-fired boiler that burns Location coal feedstock. Location coal is a sub-bituminous, low-Btu, low-sulfur coal with a high ash content that is mined from Location in an area of State c and in an area of State d. Taxpayer produces refined coal at Facility using Location coal from Coal Seam Area near City b, State d. The rights to the technology are licensed by Corp E to Corp C, and have been sublicensed from Corp C

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to Taxpayer for the full term of the lease of Facility. Corp E and Corp F formed Corp C to develop refined coal facilities.

Process involves the use of two separate inorganic chemicals (Chemical Reagents) which are applied to the coal feedstock. The first Chemical Reagent is a solid material. It mixes evenly with the coal's native ash in power plant boilers and affects the melting properties of the coal's native ash during combustion in power plant boilers. This allows adjustment of the air-fuel ratio in the boiler which reduces oxygen in the boiler and provides more favorable conditions for reduction of NO<sub>x</sub> emissions.

The second Chemical Reagent is an inorganic liquid solution which reacts with the mercury in coal, resulting in changes to the chemical form of the mercury, oxidizing more of it. As a result, more of the mercury is captured with the fly-ash in the particulate control equipment, resulting in a higher degree of removal.

Facility's equipment transports the Chemical Reagents to a coal conveyor belt, where they are applied evenly to the coal feedstock. The Chemical Reagents are combined with the coal at a rate proportional to the coal flow rate. The application of each Chemical Reagent is controlled separately by computer equipment which determines the rate of application based on the flow rate of the coal on the conveyor belt. The proportion of each Chemical Reagent to be applied per ton of coal is set based on previously verified emissions test results.

### 3. Emissions Testing

Corp C conducted full-scale emissions tests, using continuous emission monitoring systems (CEMS) at Power Plant using refined coal produced in Facility from Location coal, in Date c and again in Date d, before the effective date of the facility lease. After the execution of the lease, Taxpayer has conducted periodic full-scale CEMS field tests at Power Plant using refined coal produced in Facility from Location coal. The emissions tests were conducted in the following manner: To establish a baseline for NO<sub>x</sub> and mercury emissions, one unit of Power Plant was operated for a three-hour period at or above 90% of full load using Location coal feedstock. The same Power Plant unit was operated for a second three-hour period under the same operating conditions (except for adjustments to primary or secondary air in accordance with good air pollution control practices), using refined coal produced in the Facility using the process from Location coal and the Chemical Reagents, applied at a predetermined proportion.

During both the baseline test and the test using refined coal, NO<sub>x</sub> and mercury emissions were measured using CEMS equipment that conforms to applicable United States EPA standards. At the Power Plant, the NO<sub>x</sub> CEMS device is located upstream of the selective catalytic reduction equipment (SCR), which reduces NO<sub>x</sub> emissions, and the electrostatic precipitator, which controls particulate emissions. The mercury CEMS

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device is located in the stack downstream of the particulate control equipment and upstream of the SCR. The results of each CEMS field test indicated that burning refined coal produced using the Process in the boilers at the Power Plant results in a reduction of NO<sub>x</sub> emissions in excess of 20% and a reduction of mercury emissions in excess of 40% (excluding dilution caused by materials combined or added during the production process) when compared to emissions resulting from burning Location coal feedstock to produce the same amount of useful thermal energy.

The emission reductions demonstrated in each CEMS field test have been verified by an independent licensed professional engineer experienced in combustion and environmental engineering, as required by Notice 2010-54, 2010-40 I.R.B. 403 (Notice).

#### 4. Modifications to the Facility

Power Plant has a dual coal belt system which allows Coop to deliver coal to the bunkers that feed coal to both boiler units using one, both, or alternating coal conveyor belts. In Date e, Corp C modified the Facility by adding additional equipment to separately deliver Process chemicals to the second conveyor belt and to reconfigure other portions of the Facility to optimize its operation (Date e Capital Improvements). The Date e Capital Improvements included the removal of two of the metering screws from the live bottom hopper at the Facility, thereby reducing the first Chemical Reagent's feed rate to more closely match the maximum coal burn rates of the Power Plant; and the addition of a weigh belt conveyor to more accurately control the flow rate of the first Chemical Reagent. In addition, pumps for the second Chemical Reagent were replaced with small pumps. After the Date e Capital Improvements were completed, the fair market value of the used components in the Facility were more than 20% of the Facility's total value (the cost of the new property plus the fair market value of the used property).

Taxpayer is planning to replace the equipment at the Facility with new equipment (New Facility). The New Facility will consist of newly constructed equipment and will incorporate design improvements that are intended to increase durability. Less than 20% of the Facility's existing equipment will be incorporated into the New Facility. Taxpayer will enter into an agreement with Corp C to lease the New Facility. In exchange for the lease of the New Facility, the parties will terminate the lease for the Facility.

#### RULINGS REQUESTED

Based on the foregoing, Taxpayer has requested that we rule as follows:

An increase in the rate of application of a Chemical Reagent per ton of feedstock coal refined is not considered a “change in the process of producing refined coal from feedstock coal” for purposes of section 6.04 of Notice 2010-54.

### LAW AND ANALYSIS

Section 45(a) of the Code generally provides a credit against federal income tax for the use of renewable or alternative resources to produce electricity or fuel for the generation of steam. Section 45(e)(8) of the Code provides that, in the case of a producer of “refined coal”, the credit available under § 45(a) of the Code for any taxable year shall be increased by an amount equal to \$4.375 per ton of qualified “refined coal” (i) produced by the taxpayer at a “refined coal production facility” during the 10-year period beginning on the date that the facility was originally placed in service, and which is (ii) sold by the taxpayer to an unrelated person during such 10-year period and such taxable year.

For purposes of § 45 of the Code, section 3.01 of the Notice provides that the term “refined coal” means a fuel which -- (i) is a liquid, gaseous, or solid fuel (including feedstock coal mixed with an additive or additives) produced from coal (including lignite) or high carbon fly ash, including such fuel used as a feedstock, (ii) is sold by the taxpayer with the reasonable expectation that it will be used for purpose of producing steam, and (iii) is certified by the taxpayer as resulting (when used in the production of steam) in a qualified emission reduction. Section 45(c)(7) and section 3.04 of the Notice provide that the term “qualified emission reduction” means (1) in the case of refined coal produced at a facility placed in service after December 31, 2008, a reduction of at least twenty percent (20%) of the emissions of nitrogen oxide and at least 40% of the emissions of either sulfur dioxide or mercury released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003; in the case of production at a facility placed in service before January 1, 2009, a reduction of at least 20 percent of the emissions of NO<sub>x</sub> and at least 20 percent of the emissions of either SO<sub>2</sub> or Hg released when burning the refined coal (excluding any dilution caused by materials combined or added during the production process), as compared to the emissions released when burning the feedstock coal or comparable coal predominantly available in the marketplace as of January 1, 2003.

Section 45(d)(8) of the Code generally provides that the term “refined coal production facility” means a facility which is placed in service after October 22, 2004 and before January 1, 2012. Sections 4.07 and 5.02 of the Notice provide that when a facility is placed in service is determined in accordance with § 1.46-3(d) of the regulations.

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Section 5.01 of the Notice provides that the refined coal credit is allowed for qualified refined coal produced and sold to an unrelated person by the taxpayer, without regard to whether the taxpayer owns the refined coal production facility in which the refined coal is produced. Accordingly, a taxpayer that leases or operates a facility owned by another person may claim the credit for refined coal that the taxpayer produces in the facility.

Section 5.02 of the Notice provides that a refined coal production facility will not be considered to have been placed in service after October 22, 2004, if more than 20 percent of the total fair market value of the facility (the cost of the new property plus the value of the used property) is attributable to property that was placed in service on or before October 22, 2004.

Section 6.01 of the Notice generally provides that a qualified emissions reduction does not include any reduction attributable to mining processes or processes that would be treated as mining (as defined in § 613(c)(2), (3), (4)(A), (4)(C), or (4)(I) of the Code) if performed by the mine owner or operator. Accordingly, in determining whether a qualified emission reduction has been achieved, the emissions released when burning the refined coal must be compared to the emissions that would be released when burning the feedstock coal. Feedstock coal is the product resulting from processes that are treated as mining and are actually applied by a taxpayer in any part of the taxpayer's process of producing refined coal from coal.

Section 613(c)(5) of the Code describes treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or any necessary or incidental to a process provided for in § 613(c)(4). Any cleaning process, such as a process that uses ash separation, dewatering, scrubbing through a centrifugal pump, spiral concentration, gravity concentration, flotation, application of liquid hydrocarbons or alcohol to the surface of the fuel particles or to the feed slurry provided such cleaning does not change the physical or chemical structure of the coal, and drying to removed free water, provided such drying does not change the physical or chemical identity of the coal, will be considered as mining.

Section 6.03(1) of the Notice provides, in part, that emissions reduction may be determined using continuous emission monitoring system (CEMS) field testing. Section 6.03(1)(a) provides, in part, that CEMS field testing is testing that meets all the following requirements: (i) The boiler used to conduct the test is coal-fired and steam-producing and is of a size and type commonly used in commercial operations. (ii) Emissions are measured using a CEMS. (iii) If EPA has promulgated a performance standard that applies at the time of the test to the pollutant emission being measured, the CEMS must conform to that standard. (iv) Emissions for both the feedstock coal and the refined coal are measured at the same operating conditions and over a period of at least 3 hours during which the boiler is operating at a steady state at least 90 percent of full load. (v) a

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qualified individual verifies the test results in a manner that satisfies the requirement of section 6.03(1)(b).

Section 6.03(2) of the Notice provides that methods other than CEMS field testing may be used to determine the emissions reduction. If a method other than CEMS field testing is used, the Service may require the taxpayer to provide additional proof that the emission reduction has been achieved. The permissible methods include (a) testing using a demonstration pilot-scale combustion furnace if it established that the method accurately measures the emission reduction that would be achieved in a boiler described in section 6.03(a)(a)(i) and a qualified individual verifies the test results in a manner that satisfies the requirements of section 6.03(1)(c)(i), (ii), (v), and (vi); (b) a laboratory analysis of the feedstock coal and the refined coal that complies with a currently applicable EPA or ASTM standard and is permitted under section 6.03(2)(b)(i) or (ii).

Section 6.04(1) of the Notice provides that a taxpayer may establish that a qualified emission reduction determined under section 6.03 applies to production from a facility by a determination or redetermination that is valid at the time the production occurs. A determination or redetermination is valid for the period beginning on the date of the determination or redetermination and ending with the occurrence of the earliest of the following events: (i) the lapse of six months from the date of such determination or redetermination; (ii) a change in the source or rank of feedstock coal that occurs after the date of such determination or (iii) a change in the process of producing refined coal from the feedstock coal that occurs after the date of such determination or redetermination.

Section 6.04(2) of the Notice provides that in the case of a redetermination required because of a change in the process of producing refined coal from the feedstock coal, the redetermination required under section 6.04 must use a method that meets the requirements of section 6.03. In any other case, the redetermination requirement may be satisfied by laboratory analysis establishing that – (a) the sulfur (S) or Hg content of the amount of refined coal necessary to produce an amount of useful energy has been reduced by at least 20 percent (40 percent, in the case of facilities placed in service after December 31, 2008) in comparison to the S or Hg content of the amount of feedstock coal necessary to produce the same amount of useful energy, excluding any dilution caused by materials combined or added during the production process; (b) the S or Hg content of both the feedstock coal and the refined coal do not vary by more than 10 percent from the S and Hg content of the feedstock coal and refined coal used in the most recent determination that meets the requirements of the Notice.

Finally, section 6.05 of the Notice provides that the certification requirement of section 3.01(1)(c) is satisfied with respect to fuel for which the refined coal credit is claimed only if the taxpayer attached to its tax return on which the credit is claimed a

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certification that contains the following: (a) a statement that the fuel will result in a qualified emissions reduction when used in the production of steam; (b) a statement indicating whether CEMS field testing was used to determine the emissions reduction; (3) if CEMS field testing was not used to determine the emissions reduction, a description of the method used; (4) a statement that the emissions reduction was determined or redetermined within the six months preceding the production of the fuel and that there have been no changes in the source or rank of feedstock coal used or in the process of producing refined coal from the feedstock coal since the emissions reduction was determined or was most recently determined; and (5) a declaration signed by the taxpayer in the following form: "Under penalties of perjury, i declare that I have examined this certification and to the best of my knowledge and belief, it is true, correct, and complete."

With respect to the ruling requested, the Process involves blending the Location coal with the Chemical Reagents in a cyclone coal-fired boiler. Section 6.01 of the Notice provides generally that a qualified emission reduction does not include any reduction attributable to mining processes or processes that would be treated as mining, as further defined in the Code, if performed by the mine owner or operator. Section 613(c)(5) of the Code describes certain treatment processes that are not considered as mining unless they are provided for in § 613(c)(4) or are necessary or incidental to a process provide for in § 613(c)(4). For example, § 6.01(2) provides, in part, that any cleaning process such as the application of liquid hydrocarbons or alcohol to the surface of the fuel particle or to the feed slurry, provided such cleaning does not change the physical or chemical structure of the coal, will be considered mining. In the instant case, the Technology is not a mining process. Further, section 3.01 clarifies § 45(c)(7) and specifically provides that refined coal includes feedstock coal mixed with an additive or additives. Thus, additive processes which mix certain chemicals or other additives with the coal in order to achieve emission reductions may qualify for the production tax credit for refined coal. Accordingly, we conclude (a) that refined coal produced at the Facility using the Process and the Chemical Reagents is "refined coal" within the meaning of § 45(c)(7), provided the refined coal (i) is sold to an unrelated person within the meaning of § 45(c)(7) and (ii) meets the emission reduction requirement of § 45(c)(7)(B) of the Code and (b) an increase in the rate of application of a Chemical Reagent per ton of feedstock coal refined is not considered a "change in the process of producing refined coal from feedstock coal" for purposes of section 6.04 of Notice 2010-54.



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No opinion is expressed regarding any other issue not specifically addressed in this ruling letter. Specifically, no opinion is expressed whether the Taxpayer/lessee is the producer of refined coal.

In accordance with the Power of Attorney on file with this office, we are sending a copy of this letter to your authorized representatives. A copy of this ruling must be attached to any income tax return to which it is relevant. Alternatively, taxpayers filing their returns electronically may satisfy this requirement by attaching a statement to their return that provides the date and control number of the letter ruling.

This ruling is directed only to the Taxpayer who requested it. Section 6110(k)(3) of the Code provides it may not be used or cited as precedent. We are sending a copy of this letter ruling to the Industry Director.

Sincerely,

Peter C. Friedman  
Senior Technician Reviewer, Branch 6  
Office of Associate Chief Counsel (Passthroughs  
& Special Industries)